Abstract

An audio device management system (ADMS) manages remote audio devices via user selections in video links. The system enhances audio acquisition quality by receiving and processing human suggestions, forming customized two-way audio links according to user requests, and learning audio pickup strategies and camera management strategies from user operations. The ADMS control interface for a remote user provides a multi-window GUI that provides an overview window and selection display window. The ADMS provides users with more flexibility to enhance audio signals according to their needs and makes it more convenient to form customized two-way audio links without requiring users to remember a list of phone numbers. The ADMS also automatically manages available microphones for audio pickup based on microphone sound quality and the system's past experience when users monitor a structured audio environment without explicitly expressing their attentions in the video window.